

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460



OFFICE OF CHEMICAL SAFETY AND  
POLLUTION PREVENTION

**MEMORANDUM**

**Date:** 03-OCT-2012

**SUBJECT:** **Cyproconazole.** Acute and Chronic Aggregate Dietary (Food + Drinking Water) Exposure and Risk Assessment for the Section 3 Registration Action Use on Peanuts.

**PC Code:** 128993

**DP Barcode:** D400183

**Decision No.:** 460573

**Registration No.:** 100-1226

**Petition No.:** 1F7956

**Regulatory Action:** Section 3 Registration

**Risk Assessment Type:** Dietary

**Case No.:** 7011

**TXR No.:** NA

**CAS No.:** 94361-06-5

**MRID No.:** NA

**40 CFR:** §180.485

**FROM:** Sarah J. Levy, Chemist *Sarah J. Levy*  
Risk Assessment Branch 1 (RAB1)/Health Effects Division (HED; 7509P)

**THROUGH:** Donna Davis, Chemist *Donna Davis*  
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Dietary Exposure Science Advisory Council (DESAC)/HED (7509P)

and

George F. Kramer, Ph.D., Branch Senior Scientist *George F. Kramer*  
RAB1/HED (7509P)

**TO:** Sarah J. Levy, Chemist/Risk Assessor  
RAB1/HED (7509P)

and

Mary Waller, RM 21  
Registration Division (RD; 7505P)

## Executive Summary

Unrefined acute and chronic aggregate dietary (food + drinking water) exposure and risk assessments were conducted for cyproconazole using the Dietary Exposure Evaluation Model software with the Food Commodity Intake Database (DEEM-FCID) Version 3.16, which uses food consumption data from the U.S. Department of Agriculture's National Health and Nutrition Examination Survey, What We Eat in America, (NHANES/WWEIA). This dietary survey was conducted from 2003 to 2008. The acute and chronic analyses were performed to support a Section 3 request on peanuts. The unrefined acute and chronic analyses assumed tolerance-level residues, 100% crop treated (CT), DEEM (ver. 7.81) default processing factors, and modeled water numbers.

### Acute Dietary (Food + Drinking Water) Exposure Results and Characterization

An acute dietary risk analysis was conducted only for females 13-49 years old since an endpoint of concern attributable to a single dose for general population was not identified. The resulting acute (food + drinking water) risk estimate for female 13-49 years old was 32% of the acute population-adjusted dose (aPAD) at the 95<sup>th</sup> percentile of the exposure distribution; i.e., below HED's level of concern (LOC; <100% aPAD). Therefore, the acute dietary exposure to cyproconazole is not of concern to HED.

### Chronic Dietary (Food + Drinking Water) Exposure Results and Characterization

The resulting chronic (food + drinking water) risk estimates were less than HED's LOC (<100% of the chronic population-adjusted dose (cPAD)) for U.S. general population (13% of the cPAD) and all population sub-groups; the most highly exposed population subgroup was all infants (<1 years old) with an estimated exposure equivalent to 28% of the cPAD. Therefore, the chronic dietary exposure to cyproconazole is not of concern to HED. A chronic cancer dietary assessment was not conducted since it was determined that cyproconazole is not a possible human carcinogen.

## I. Introduction

Dietary risk assessment incorporates both exposure and toxicity of a given pesticide. For acute and chronic assessments, the risk is expressed as a percentage of a maximum acceptable dose (i.e., the dose which HED has concluded will result in no unreasonable adverse health effects). This dose is referred to as the PAD. The PAD is equivalent to point of departure (POD, NOAEL, LOAEL, e.g.) divided by the required uncertainty or safety factors.

For acute and non-cancer chronic exposures, HED is concerned when estimated dietary risk exceeds 100% of the PAD. References which discuss the acute and chronic risk assessments in more detail are available on the EPA/pesticides web site: "Available Information on Assessing Exposure from Pesticides, A User's Guide," 21-JUN-2000, web link: <http://www.epa.gov/fedrgstr/EPA-PEST/2000/July/Day-12/6061.pdf>; or see SOP 99.6 (20-AUG-1999).

The most recent dietary risk assessment for cyproconazole was conducted by Sarah Levy (14-APR-2011; DP# 387646).



## II. Residue Information

*Residues of Concern:* For purposes of establishing tolerances and risk assessment, the residues of concern in plants are free and conjugated cyproconazole. Based on the available ruminant metabolism data and the results of the dairy cattle feeding study, HED concludes that the residues of concern for the tolerance expression and risk assessment in milk are cyproconazole and Metabolite M36; in liver are cyproconazole and Metabolite M14; and in meat, meat byproducts (except liver), and fat are cyproconazole *per se*. As no major environmental degradates were identified, the residue of concern in the risk assessment for drinking water is cyproconazole only.

HED has also determined that 1,2,4-triazole, triazole alanine (TA) and triazole acetic acid (TAA) are also potential residues of concern for all triazole fungicides. However, these triazole-related residues will not be regulated for specific triazole pesticides, but will be evaluated for the entire class of triazole compounds. HED completed a comprehensive risk assessment considering triazole, TA and TAA based on established and proposed uses of triazole fungicides as of August 2012 (DP# 403618, T. Morton, 01-AUG-2012). A separate risk assessment for these triazole-related residues will not be required for the current action as the residue levels for peanut commodities utilized in the aforementioned assessment are greater than the maximum residues observed in the cyproconazole field trials.

*Established/Recommended Tolerances:* Permanent tolerances are established for cyproconazole on a variety of crop and livestock commodities (40 CFR §180.485). Associated with this petition, HED is recommending for permanent tolerances in/on peanut at 0.01 ppm and peanut, hay at 6.0 ppm (Memo, G. Kramer, 03-OCT-2012; DP# 400182). As peanut hay is a livestock feed item, HED calculated a maximum reasonable balanced diet (MRBD); however, these MRBDs are equal to or lower than those calculated previously. The currently established tolerances for residues in livestock commodities are adequate to support the proposed new use one peanuts.

The USDA Pesticide Data Program (PDP) monitored pesticide residues in catfish in 2008, 2009, and 2010. Over this 3-year period, PDP analyzed 552 samples of catfish for cyproconazole residues. None of the samples contained detectable residues. As a result, residues in fish were not included in the assessment.

The unrefined acute and chronic analyses assumed tolerance-level residues, 100% CT, DEEM (ver. 7.81) default processing factors, and modeled water numbers.

## III. Percent Crop Treated Information

A default of 100% CT was assumed for both the acute and chronic dietary exposure assessments.

## IV. Drinking Water Data

The drinking water residues used in the dietary risk assessment were provided by the Environmental Fate and Effects Division (EFED) (R. Jones, 17-SEP-2012; DP# 405279) and incorporated directly into the acute and chronic dietary assessments. Estimated drinking water concentrations (EDWCs) were incorporated directly into DEEM-FCID under the food categories “water, direct, all sources” and “water, indirect, all sources.”



Tier 1 EDWCs from surface water were estimated using the FQPA Index Reservoir Screening Tool (FIRST) (Version 1.1.1) and EDWCs in ground water were estimated using the Screening Concentration In Ground Water model (SCI-GROW) (Version 2.3). Since the EDWC estimates from surface water were higher than those from groundwater, EDWC estimates in surface water were used in both acute and chronic dietary risk assessments.

The drinking water assessment for parent cyproconazole is based on the highest maximum annual application rate of 2.34 lb ai/A (0.09 lb ai/A x 26 applications) for the registered use on roses (this scenario yielded the highest EDWCs for the registered/proposed uses). EDWCs for cyproconazole from surface water are shown in Table 1.

**Table 1. EDWCs from Cyproconazole applied to Roses.<sup>1</sup>**

Source (Use Pattern)	Acute EDWC (ug/L)	Chronic EDWC (ug/L)
Surface Water (roses)	113	43
Groundwater (roses)	1.52	1.52

<sup>1</sup> The percent crop area factor was set to 1 as the uses can be both agricultural and non-agricultural.

Tier I FIRST modeling indicate cyproconazole EDWCs in surface source drinking water are not expected to exceed 113 µg/L for the annual peak concentration and 43 µg/L for the annual mean concentration. Tier I SCI-GROW modeling indicate the peak and chronic cyproconazole concentration in shallow groundwater is not expected to exceed 1.52 µg/L. In this assessment, the annual peak concentration (113 ppb), and the 1-in-10-year annual mean concentration (43 ppb) resulting from the registered use on roses were used for acute and chronic dietary exposure assessments respectively.

## V. DEEM-FCID Program and Consumption Information

Cyproconazole acute and chronic dietary risk assessments were conducted using DEEM-FCID, Version 3.16, which incorporates consumption data from USDA's NHANES/WWEIA. This dietary survey was conducted from 2003 to 2008. The data are based on the reported consumption of more than 20,000 individuals over two non-consecutive survey days. Foods "as consumed" (e.g., apple pie) are linked to EPA-defined food commodities (e.g., apples, peeled fruit - cooked; fresh or N/S; baked; or wheat flour - cooked; fresh or N/S, baked) using publicly available recipe translation files developed jointly by USDA/ARS and EPA. For chronic exposure assessment, consumption data are averaged for the entire U.S. population and within population subgroups. However, for acute exposure assessment, consumption data are retained as individual consumption events. Based on analysis of the 2003-2008 WWEIA consumption data, which took into account dietary patterns and survey respondents, HED concluded that it is most appropriate to report risk for the following population subgroups: the general U.S. population, all infants (<1 year old), children 1-2, children 3-5, children 6-12, youth 13-19, adults 20-49, females 13-49, and adults 50-99 years old.

For a chronic dietary exposure assessment, an estimate of the residue level in each food or food-form (e.g., orange or orange juice) on the food commodity residue list is multiplied by the average daily consumption estimate for that food/food form to produce a residue intake estimate. The resulting residue intake estimate for each food/food form is summed with the residue intake estimates for all other food/food forms on the commodity residue list to arrive at the total



average estimated exposure. Exposure is expressed in mg/kg body weight/day and as a percent of the cPAD. This procedure is performed for each population subgroup.

For an acute exposure assessment, individual one-day food consumption data are used on an individual-by-individual basis. The reported consumption amounts of each food item can be multiplied by a residue point estimate and summed to obtain a total daily pesticide exposure for a deterministic exposure assessment, or “matched” in multiple random pairings with residue values and then summed in a probabilistic assessment. The resulting distribution of exposures is expressed as a percentage of the aPAD on both a user (i.e., only those who reported eating relevant commodities/food forms) and a per-capita (i.e., those who reported eating the relevant commodities as well as those who did not) basis. In accordance with HED policy, per capita exposure and risk are reported for analyses performed at all levels of refinement. However, for deterministic assessments, any significant differences in user vs. per capita exposure and risk are specifically identified and noted in the risk assessment.

## VI. Toxicological Information

Table 2 is a summary of the toxicology doses and endpoints selected that are relevant to dietary risk assessment (13-NOV-2003; TXR# 0052234).

<b>Exposure Scenario</b>	<b>POD</b>	<b>Uncertainty/ FQPA SFs</b>	<b>RfD, PAD, LOC for Risk Assessment</b>	<b>Study and Toxicological Effects</b>
Acute Dietary (General population, including infants and children)	N/A	N/A	N/A	A dose and endpoint attributable to a single dose applicable to this population were not identified in the database including the developmental toxicity studies.
Acute Dietary (Females 13-49 years of age)	NOAEL = 2 mg/kg/day	UF <sub>A</sub> = 10X UF <sub>H</sub> = 10X  FQPA SF = 1X	aPAD = acute RfD = 0.02 mg/kg	<b>Prenatal Developmental toxicity Study</b> – New Zealand white rabbits. Developmental LOAEL = 10 mg/kg/day based on increased incidence of malformed fetuses and litters with malformed fetuses.
Chronic Dietary (All populations)	NOAEL = 1.0 mg/kg/day	UF <sub>A</sub> = 10X UF <sub>H</sub> = 10X  FQPA SF = 1X	cPAD = cRfD = 0.01 mg/kg/day	<b>Chronic oral toxicity study</b> – dog. LOAEL = 3.2 mg/kg/day based on liver effects (P450 induction in females and histopathology, laminar eosinophilic intrahepatocytic bodies in males).
Cancer (oral, dermal, inhalation)	HED classified cyproconazole as “not likely to be carcinogenic to humans” according to EPA <i>Proposed Guidelines for Carcinogen Risk Assessment</i> (April 10, 1996).			

Point of departure (POD) = A data point or an estimated point that is derived from observed dose-response data and used to mark the beginning of extrapolation to determine risk associated with lower environmentally relevant human exposures. NOAEL = no-observed adverse-effect level. LOAEL = lowest-observed adverse-effect level. UF = uncertainty factor. UF<sub>A</sub> = extrapolation from animal to human (interspecies). UF<sub>H</sub> = potential variation in sensitivity among members of the human population (intraspecies). FQPA SF = FQPA Safety Factor. PAD = population-adjusted dose (a = acute, c = chronic). RfD = reference dose. N/A = not applicable.



## VII. Results/Discussion

As stated above, for acute and chronic assessments, HED is concerned when dietary risk exceeds 100% of the PAD. The DEEM-FCID analyses estimate the dietary exposure of the U.S. population and various population subgroups. An acute dietary assessment was conducted only for females 13-49 years old since an endpoint of concern attributable to a single dose for the general population was not identified. The results of chronic dietary risk estimates reported in Table 3 are for the general U.S. population, all infants (<1 year old), children 1-2, children 3-5, children 6-12, youth 13-19, females 13-49, adults 20-49, and adults 50-99 years old.

### Acute Dietary (Food + Drinking Water) Exposure Results and Characterization

The resulting acute (food + drinking water) risk estimate for female 13-49 years old was 32% of the aPAD at the 95<sup>th</sup> percentile of the exposure distribution, i.e., below HED's LOC (<100% aPAD); therefore, the acute dietary exposure to cyproconazole is not of concern to HED.

### Chronic Dietary (Food + Drinking Water) Exposure Results and Characterization

The resulting chronic (food + drinking water) risk estimates were less than HED's LOC (<100% cPAD) for the U.S. general population (13% of the cPAD) and all population sub-groups; the most highly exposed population subgroup was all infants (<1 year old), which utilized 28% of the cPAD. Therefore, the chronic dietary exposure to cyproconazole is not of concern to HED. A chronic cancer dietary assessment was not conducted since it was determined that cyproconazole is not a possible human carcinogen.

**Table 3. Results of Acute and Chronic Dietary (Food + Drinking Water) Exposure Analyses.**

Population Subgroup <sup>1</sup>	Acute Dietary <sup>2</sup> (95 Percentile)		Chronic Dietary <sup>3</sup>		Cancer	
	Dietary Exposure (mg/kg/day)	% aPAD	Dietary Exposure (mg/kg/day)	% cPAD	Dietary Exposure (mg/kg/day)	Risk
General U.S. Population	N/A	N/A	0.001261	13	N/A	N/A
All Infants (<1 year old)	N/A	N/A	<b>0.002785</b>	<b>28</b>		
Children 1-2 years old	N/A	N/A	0.002716	27		
Children 3-5 years old	N/A	N/A	0.002118	21		
Children 6-12 years old	N/A	N/A	0.001443	14		
Youth 13-19 years old	N/A	N/A	0.001007	10		
Adults 20-49 years old	N/A	N/A	0.001154	12		
Adults 50-99 years old	N/A	N/A	0.001111	11		
Females 13-49 years old	<b>0.006465</b>	<b>32</b>	0.001150	12		

<sup>1</sup> The highest dietary exposure estimate for each type of risk assessment is bolded.

<sup>2</sup> Acute toxicity endpoint was determined only for females 13-49 years old.

<sup>3</sup> Chronic dietary endpoint of 0.01 mg/kg/day applies to the general U.S. population and all population subgroups.

## VIII. Characterization of Inputs/Outputs

The acute and chronic analyses assumed tolerance-level residues, 100% CT, DEEM default processing factors, and included modeled water values. Therefore, these analyses were considered highly conservative and could be further refined if needed through the use of anticipated residues (ARs) for all commodities, % market share data for the proposed commodities, %CT data for registered commodities, and/or empirical processing factors. However, as there are no risk estimates of concern; therefore, no refinements were incorporated.

## IX. Conclusions

Unrefined acute and chronic aggregate (food + drinking water) dietary risk assessments to support a Section 3 registration of cyproconazole on peanuts were conducted using the DEEM-FCID (ver. 3.16) model and assumed tolerance-level residues, 100% CT, and DEEM™ default processing factors. The resulting acute and chronic aggregate risk estimates were well below the HED's LOC; therefore, the acute and chronic dietary exposures to cyproconazole are not of concern to HED. HED is confident that the assessments do not underestimate risk to the general U.S. population or any population subgroup.

## X. List of Attachments

- Attachment 1: Acute Food + Drinking Water Residue Input File.
- Attachment 2: Acute Results File.
- Attachment 3: Chronic Food + Drinking Water Residue Input File.
- Attachment 4: Chronic Results File.

RDI: DESAC (05-SEP-2012); G.F. Kramer (04-SEP-2012)  
S. Levy:S10953:PY1:(703)305-0783:7590P



## Attachment 1: Acute Food + Drinking Water Residue Input File.

Filename: C:\Documents and Settings\slevy\Desktop\Cyproconazole\128993Anew.R08

Chemical: Cyproconazole

RfD(Chronic): .01 mg/kg bw/day NOEL(Chronic): 0 mg/kg bw/day

RfD(Acute): .02 mg/kg bw/day NOEL(Acute): 0 mg/kg bw/day

Date created/last modified: 09-05-2012/15:20:04

Program ver. 3.16, 03-08-d

EPA Code	Crop Grp	Commodity Name	Def Res (ppm)	Adj.Factors #1	Adj.Factors #2	Comment
0600347000	6	Soybean, seed	0.050000	1.000	1.000	
0600349000	6	Soybean, soy milk	0.050000	1.000	1.000	
0600349001	6	Soybean, soy milk-babyfood or in	0.050000	1.000	1.000	
0600350000	6	Soybean, oil	0.100000	1.000	1.000	
0600350001	6	Soybean, oil-babyfood	0.100000	1.000	1.000	
0603348000	6C	Soybean, flour	0.050000	1.000	1.000	
0603348001	6C	Soybean, flour-babyfood	0.050000	1.000	1.000	
1500120000	15	Corn, field, flour	0.010000	1.000	1.000	
1500120001	15	Corn, field, flour-babyfood	0.010000	1.000	1.000	
1500121000	15	Corn, field, meal	0.010000	1.000	1.000	
1500121001	15	Corn, field, meal-babyfood	0.010000	1.000	1.000	
1500122000	15	Corn, field, bran	0.010000	1.000	1.000	
1500123000	15	Corn, field, starch	0.010000	1.000	1.000	
1500123001	15	Corn, field, starch-babyfood	0.010000	1.000	1.000	
1500124000	15	Corn, field, syrup	0.010000	1.500	1.000	
1500124001	15	Corn, field, syrup-babyfood	0.010000	1.500	1.000	
1500125000	15	Corn, field, oil	0.010000	1.000	1.000	
1500125001	15	Corn, field, oil-babyfood	0.010000	1.000	1.000	
1500401000	15	Wheat, grain	0.050000	1.000	1.000	
1500401001	15	Wheat, grain-babyfood	0.050000	1.000	1.000	
1500402000	15	Wheat, flour	0.100000	1.000	1.000	
1500402001	15	Wheat, flour-babyfood	0.100000	1.000	1.000	
1500403000	15	Wheat, germ	0.100000	1.000	1.000	
1500404000	15	Wheat, bran	0.100000	1.000	1.000	
3100046000	31	Beef, meat byproducts	0.010000	1.000	1.000	
3100046001	31	Beef, meat byproducts-babyfood	0.010000	1.000	1.000	
3100047000	31	Beef, fat	0.010000	1.000	1.000	
3100047001	31	Beef, fat-babyfood	0.010000	1.000	1.000	
3100048000	31	Beef, kidney	0.010000	1.000	1.000	
3100049000	31	Beef, liver	0.500000	1.000	1.000	
3100049001	31	Beef, liver-babyfood	0.500000	1.000	1.000	
3200170000	32	Goat, meat byproducts	0.010000	1.000	1.000	
3200171000	32	Goat, fat	0.010000	1.000	1.000	
3200172000	32	Goat, kidney	0.010000	1.000	1.000	
3200173000	32	Goat, liver	0.500000	1.000	1.000	
3400295000	34	Pork, liver	0.010000	1.000	1.000	
3500340000	35	Sheep, meat byproducts	0.010000	1.000	1.000	
3500341000	35	Sheep, fat	0.010000	1.000	1.000	
3500341001	35	Sheep, fat-babyfood	0.010000	1.000	1.000	
3500342000	35	Sheep, kidney	0.010000	1.000	1.000	
3500343000	35	Sheep, liver	0.500000	1.000	1.000	
3600222000	36	Milk, fat	0.020000	1.000	1.000	
3600222001	36	Milk, fat-baby food/infant formu	0.020000	1.000	1.000	
3600223000	36	Milk, nonfat solids	0.020000	1.000	1.000	
3600223001	36	Milk, nonfat solids-baby food/in	0.020000	1.000	1.000	
3600224000	36	Milk, water	0.020000	1.000	1.000	
3600224001	36	Milk, water-babyfood/infant form	0.020000	1.000	1.000	
3600225001	36	Milk, sugar (lactose)-baby food/	0.020000	1.000	1.000	
8601000000	86A	Water, direct, all sources	0.113000	1.000	1.000	roses
8602000000	86B	Water, indirect, all sources	0.113000	1.000	1.000	roses
9500115000	O	Coffee, roasted bean	0.100000	1.000	1.000	
9500116000	O	Coffee, instant	0.100000	1.000	1.000	
9500263000	O	Peanut	0.010000	1.000	1.000	1F7956
9500264000	O	Peanut, butter	0.010000	1.890	1.000	1F7956
Full comment: 1F7956; default processing factor						
9500265000	O	Peanut, oil	0.010000	1.000	1.000	1F7956



**Attachment 2: Acute Results File.**

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	95th Percentile		99th Percentile		99.9th Percentile	
	Exposure	% aRfD	Exposure	% aRfD	Exposure	% aRfD
Female 13-49:	0.006465	32.33	0.009298	46.49	0.012981	64.91



**Attachment 3: Chronic Food + Drinking Water Residue Input File.**

Filename: C:\Documents and Settings\slevy\Desktop\Cyproconazole\128993Cnew.R08

Chemical: Cyproconazole

RfD(Chronic): .01 mg/kg bw/day NOEL(Chronic): 0 mg/kg bw/day

RfD(Acute): .01 mg/kg bw/day NOEL(Acute): 0 mg/kg bw/day

Date created/last modified: 09-05-2012/15:21:20

Program ver. 3.16, 03-08-d

EPA Code	Crop Grp	Commodity Name	Def Res (ppm)	Adj. Factors #1	Adj. Factors #2	Comment
0600347000	6	Soybean, seed	0.050000	1.000	1.000	
0600349000	6	Soybean, soy milk	0.050000	1.000	1.000	
0600349001	6	Soybean, soy milk-babyfood or in	0.050000	1.000	1.000	
0600350000	6	Soybean, oil	0.100000	1.000	1.000	
0600350001	6	Soybean, oil-babyfood	0.100000	1.000	1.000	
0603348000	6C	Soybean, flour	0.050000	1.000	1.000	
0603348001	6C	Soybean, flour-babyfood	0.050000	1.000	1.000	
1500120000	15	Corn, field, flour	0.010000	1.000	1.000	
1500120001	15	Corn, field, flour-babyfood	0.010000	1.000	1.000	
1500121000	15	Corn, field, meal	0.010000	1.000	1.000	
1500121001	15	Corn, field, meal-babyfood	0.010000	1.000	1.000	
1500122000	15	Corn, field, bran	0.010000	1.000	1.000	
1500123000	15	Corn, field, starch	0.010000	1.000	1.000	
1500123001	15	Corn, field, starch-babyfood	0.010000	1.000	1.000	
1500124000	15	Corn, field, syrup	0.010000	1.500	1.000	
1500124001	15	Corn, field, syrup-babyfood	0.010000	1.500	1.000	
1500125000	15	Corn, field, oil	0.010000	1.000	1.000	
1500125001	15	Corn, field, oil-babyfood	0.010000	1.000	1.000	
1500401000	15	Wheat, grain	0.050000	1.000	1.000	
1500401001	15	Wheat, grain-babyfood	0.050000	1.000	1.000	
1500402000	15	Wheat, flour	0.100000	1.000	1.000	
1500402001	15	Wheat, flour-babyfood	0.100000	1.000	1.000	
1500403000	15	Wheat, germ	0.100000	1.000	1.000	
1500404000	15	Wheat, bran	0.100000	1.000	1.000	
3100046000	31	Beef, meat byproducts	0.010000	1.000	1.000	
3100046001	31	Beef, meat byproducts-babyfood	0.010000	1.000	1.000	
3100047000	31	Beef, fat	0.010000	1.000	1.000	
3100047001	31	Beef, fat-babyfood	0.010000	1.000	1.000	
3100048000	31	Beef, kidney	0.010000	1.000	1.000	
3100049000	31	Beef, liver	0.500000	1.000	1.000	
3100049001	31	Beef, liver-babyfood	0.500000	1.000	1.000	
3200170000	32	Goat, meat byproducts	0.010000	1.000	1.000	
3200171000	32	Goat, fat	0.010000	1.000	1.000	
3200172000	32	Goat, kidney	0.010000	1.000	1.000	
3200173000	32	Goat, liver	0.500000	1.000	1.000	
3400295000	34	Pork, liver	0.010000	1.000	1.000	
3500340000	35	Sheep, meat byproducts	0.010000	1.000	1.000	
3500341000	35	Sheep, fat	0.010000	1.000	1.000	
3500341001	35	Sheep, fat-babyfood	0.010000	1.000	1.000	
3500342000	35	Sheep, kidney	0.010000	1.000	1.000	
3500343000	35	Sheep, liver	0.500000	1.000	1.000	
3600222000	36	Milk, fat	0.020000	1.000	1.000	
3600222001	36	Milk, fat-baby food/infant formu	0.020000	1.000	1.000	
3600223000	36	Milk, nonfat solids	0.020000	1.000	1.000	
3600223001	36	Milk, nonfat solids-baby food/in	0.020000	1.000	1.000	
3600224000	36	Milk, water	0.020000	1.000	1.000	
3600224001	36	Milk, water-babyfood/infant form	0.020000	1.000	1.000	
3600225001	36	Milk, sugar (lactose)-baby food/	0.020000	1.000	1.000	
8601000000	86A	Water, direct, all sources	0.043000	1.000	1.000	roses
8602000000	86B	Water, indirect, all sources	0.043000	1.000	1.000	roses
9500115000	0	Coffee, roasted bean	0.100000	1.000	1.000	
9500116000	0	Coffee, instant	0.100000	1.000	1.000	
9500263000	0	Peanut	0.010000	1.000	1.000	1F7956
9500264000	0	Peanut, butter	0.010000	1.890	1.000	1F7956
Full comment: 1F7956; default processing factor						
9500265000	0	Peanut, oil	0.010000	1.000	1.000	1F7956



**Attachment 4: Chronic Results File.**

US EPA

Ver. 3.16,

03-08-d

DEEM-FCID Chronic analysis for CYPROCONAZOLE

NHANES 2003-2008 2-day

Residue file name: C:\Documents and

Settings\slevy\Desktop\Cyproconazole\128993Cnew.R08

Adjustment factor #2 used.

Analysis Date 09-05-2012/15:23:53

Residue file dated: 09-05-

2012/15:21:20

Reference dose (RfD, Chronic) = .01 mg/kg bw/day

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Total exposure by population subgroup

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Population Subgroup	Total Exposure	
	mg/kg body wt/day	Percent of Rfd
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Total US Population	0.001261	12.6%
Hispanic	0.001258	12.6%
Non-Hisp-White	0.001286	12.9%
Non-Hisp-Black	0.001059	10.6%
Non-Hisp-Other	0.001409	14.1%
Nursing Infants	0.000988	9.9%
Non-Nursing Infants	0.003588	35.9%
Female 13+ PREG	0.001145	11.4%
Children 1-6	0.002297	23.0%
Children 7-12	0.001359	13.6%
Male 13-19	0.001004	10.0%
Female 13-19/NP	0.001010	10.1%
Male 20+	0.001093	10.9%
Female 20+/NP	0.001174	11.7%
Seniors 55+	0.001092	10.9%
All Infants	0.002785	27.9%
Female 13-50	0.001150	11.5%
Children 1-2	0.002716	27.2%
Children 3-5	0.002118	21.2%
Children 6-12	0.001443	14.4%
Youth 13-19	0.001007	10.1%
Adults 20-49	0.001154	11.5%
Adults 50-99	0.001111	11.1%
Female 13-49	0.001150	11.5%
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